TORNADO AT CINCINNATI OHIO, JANUARY 19, 1928

By W. B. SCHLOMER

A tornado of very limited extent, and the second authentic storm of such character to visit Cincinnati since official records began, caused considerable damage over a small area in the Mill Creek Valley section of Cumminsville, in the northwestern portion of Cincinnati. It is probably the first time that a storm of this type occurred in this latitude of the Ohio Valley near midwinter.

Meteorological conditions at 8 a. m. January 19, 1928, showed a deep storm central over Lake Michigan with a troughlike extension southward over the lower Ohio Valley. Thunderstorms had occurred during the preceding 12 hours over the region from the lower Ohio Valley westward to Missouri. The pressure had been falling steadily during the last 24 hours, with a rather rapid fall between about 2 a. m. and 8:50 a. m. The weather had been quite dark during the morning, artificial light being necessary in offices, stores, etc. At 9. a. m. the darkness became more pronounced, causing comment and inquiry. At 9:07 a. m. there was a sudden and decided diminution in the brilliancy of the electric lights in the office and elsewhere in the city. It is believed that this fixes the time of the tornado and also corresponds with the Union Gas & Electric Co.'s record of trouble on their power lines. It was also at this time that Mr. J. T. Gray, on duty at the Abbe Meteorological Observatory, reports having heard an unusual roar in the west and the sky black and threatening. The path of the tornado was about 1 mile west of the Abbe Observatory.

First evidences of the tornado appear over the region immediately west of Spring Grove Avenue, between Ralston Street and Mill Creek Bridge. The tornado moved in a northeasterly direction. Along Spring Grove Avenue its track was apparently about 500 feet wide. Except for overturned chimneys, all evidence of destruction disappears about 200 feet east of Colerain Avenue, and it is estimated that the path of the tornado was about 1,000 feet long and varied in width from about 500 feet to 200 feet. A number of eyewitnesses claim to have observed the funnel-shaped cloud accompanied by balls of fire. It is believed that this latter was due to short-circuited fallen electric wires. Aside from these eyewitnesses the débris in several places bears evidence of tornadic action, and some buildings show the explosive force of the air as the vortex passed. Fortunately no lives were lost. About 18 people suffered injuries, none serious, and the total property damage is estimated at about $100,000.

Records made at both the Abbe Meteorological Observatory and the Government Building, 1 and 4 miles, respectively, from the scene of the tornado do not show any close connection with the storm. At the Government Building there was a sudden backing of the wind from east to west at 8:50 a. m. and a simultaneous rise of 0.09 in inch pressure followed by a rather sharp drop of 0.10 inch. At the Abbe Meteorological Observatory brisk southerly winds shifted to southwest at 9 a. m., and at about 9:09 a. m. a moderately heavy rain was coincident with a sudden pressure rise of 0.04 inch.

TORNADOES AT LOUISVILLE, KY., JANUARY 19, 1928

By J. L. KENDALL

Two small tornadoes descended upon the outskirts of Louisville on the date above mentioned and under atmospheric conditions as described in the above article. The storm was associated with a thunderstorm and the wind-shift line of the cyclone.

The first and most intense of the two had its origin about 1 mile southwest of Shively, Jefferson County, Ky., and moved east-northeast to a point near Anchorage, Ky., a distance of about 18 miles.

The second tornado originated about 12 miles almost due east of the origin of the first and moved in a path parallel thereto for a distance of but 4 miles, beginning near Fern Creek and ending near Jeffersonton. The damage wrought by these storms is given on page 25.

As in the case of the tornado of March 18, 1925, which traversed a district but a few miles south of this one, the tendency of the tornadic winds was to rise as distance to the east was gained. After passing through the southern part of the city they touched the earth only occasionally.

A MIDWINTER SHOWER IN NORTH DAKOTA

By WILLIAM J. BERRY

A light shower of rain accompanied by high temperature for the season occurred at Grand Forks, N. Dak., during the night of December 4–5, 1927. The rain began about 11 p. m. It did not freeze on trees and telephone wires but the ground surface soon became glazed over. The temperature, which for several days had been around and below zero, Fahrenheit, stood at 9 below zero at 9 a. m. on the 4th; it rose rapidly thereafter reaching 36° above by the following midnight, a rise at the rate of 3° per hour for a 15-hour period. The wind, which was fairly strong from the south-southeast on the 4th, decreased to a speed of barely 4 miles per hour at midnight of the 5th, shifting to northwest at that hour and increasing to 30 miles per hour at 7:45 a. m. on the 5th.

DISCUSSION

The conditions above described were due to the rather rapid eastward movement of a well-defined cyclonic system which crossed the meridian of Grand Forks about the time of highest temperature. The center of the system was to the northward of Grand Forks and the barometric gradient was for southerly winds.

Kite observations made at Ellendale, N. Dak., on the dates in question show the following:[1]

"An unusually large rise in the surface temperature accompanying a northwesterly wind at Ellendale on December 4–5 makes the upper air records for those dates

[1] Reported on by L. T. Samuels, of the Aerological Division.